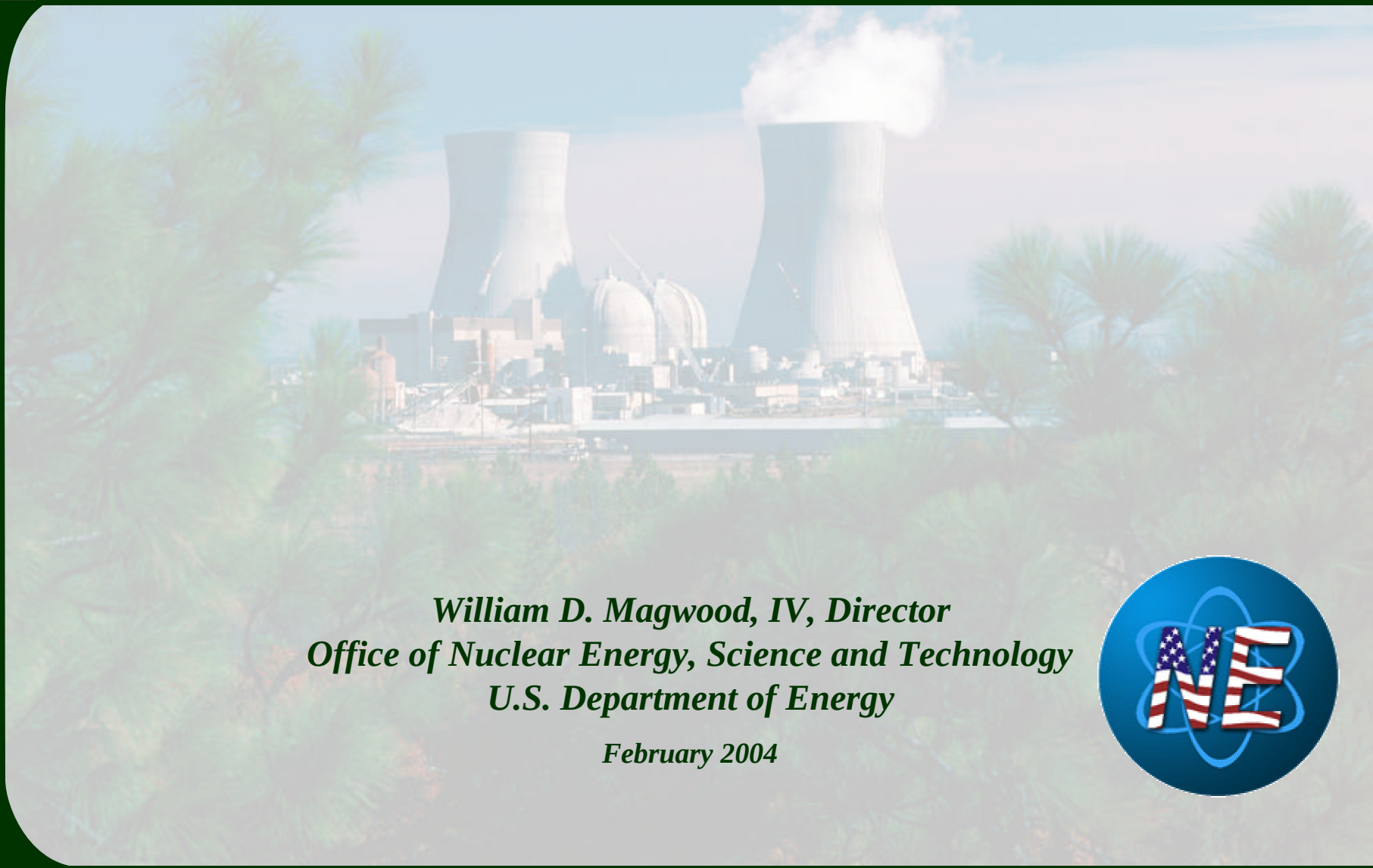
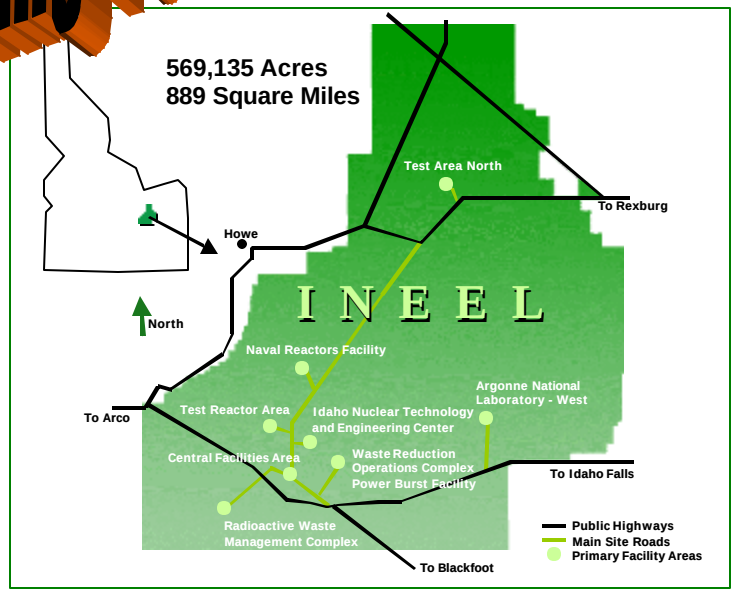
Moving Forward with the Nuclear Energy Agenda



William D. Magwood, IV, Director
Office of Nuclear Energy, Science and Technology
U.S. Department of Energy

February 2004

Moving Forward . . . with the Development of the Idaho National Laboratory (INL)



FY 2005 Request for INL

($ in Millions)

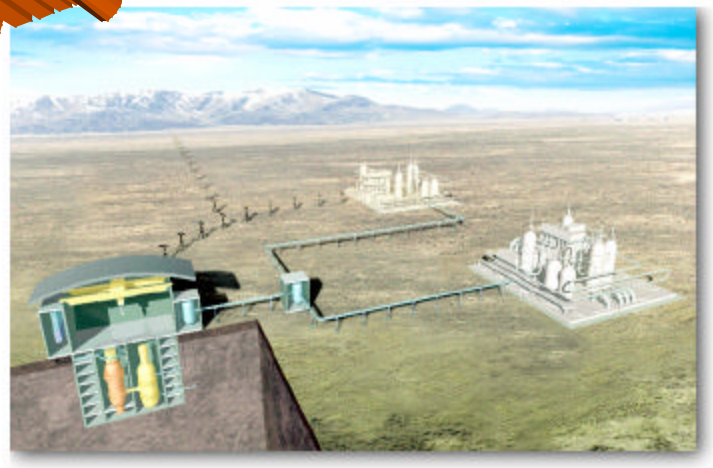
Research	$ 37.2
Infrastructure	182.7
Total	**$219.9**

The President's budget supports:

- **Establishing a new laboratory for nuclear energy research, development, demonstration and education**
  - Request for Proposals issued this week to find a management team to reduce costs and build expertise
  - Close coordination with the Idaho Cleanup Project
- **Establishing a lead role in development of advanced fuel cycle technologies, Generation IV, and nuclear hydrogen technology**

Moving Forward

. . . with Generation IV Nuclear Energy Systems



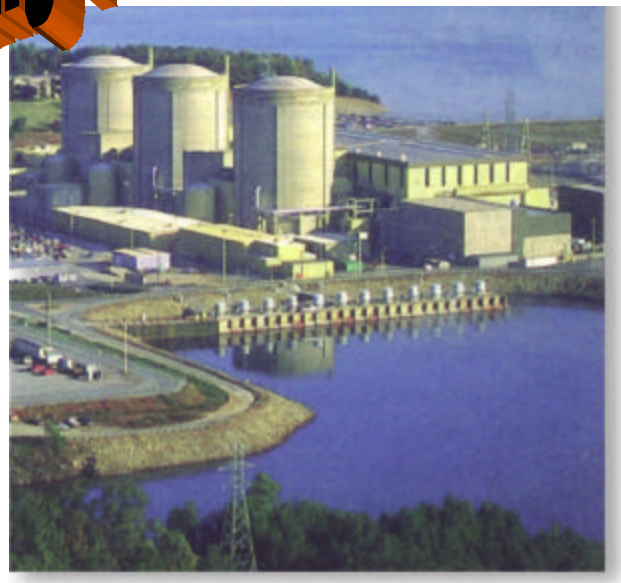
The President's budget supports:

- **Pre-conceptual design for the Next Generation Nuclear Plant**
- **R&D on supercritical water-cooled reactors and various fast reactor concepts**
- **Development of advanced high temperature materials for nuclear applications**
- **Nuclear Hydrogen Initiative for research on advanced hydrogen production technologies -- part of *National Hydrogen Fuel Initiative***

FY 2005 Request for Gen IV
($ in Millions)

NGNP	$19.3
Gen IV Concepts	7.6
Nuclear Hydrogen	9.0
I-NERI	2.8
Total	**$38.7**

Moving Forward . . . with Providing a Viable Nuclear Power Option For the Future



FY 2005 Request for Nuclear Power
($ in Millions)

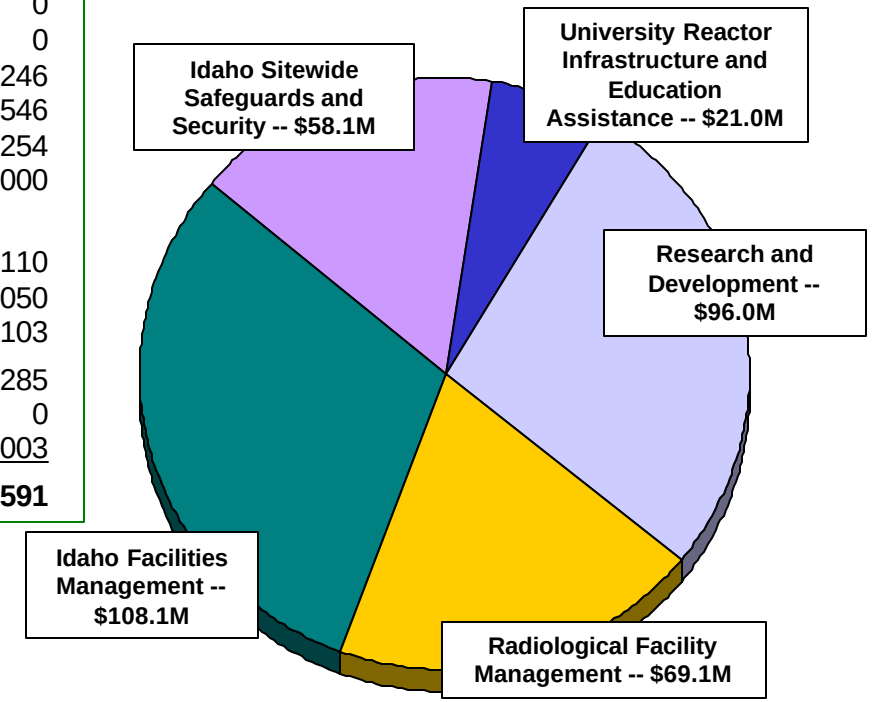
NP 2010	$10.2
AFCI	46.2
University Programs	21.0
Total	**$77.4**

The President's budget supports:

- **Cost shared projects with utilities to demonstrate untested regulatory processes**
  - Paving the way for a industry order around 2005
- **Development and testing of nitride and metal fuels for next generation reactors**
- **Working with nations with advanced fuel cycle infrastructures (*e.g.*, Japan and France) to create a better, more proliferation-resistant nuclear fuel cycle**
- **Vital new investments in University infrastructure and research**

FY 2005 Budget Request
Nuclear Energy, Science and Technology

	(dollars in thousands) FY 2004 Comparable Approp.	FY 2005 Request to Congress
University Reactor Infrastructure and Education Assistance	22,855	21,000
Research and Development		
Nuclear Energy Plant Optimization	2,944	0
Nuclear Energy Research Initiative	6,592	0
Nuclear Energy Technologies	19,622	10,246
Generation IV Nuclear Energy Systems Initiative	27,744	30,546
Advanced Fuel Cycle Initiative	66,713	46,254
Nuclear Hydrogen Initiative	6,377	9,000
Infrastructure		
Radiological Facility Management	63,431	69,110
Idaho Facilities Management	75,415	108,050
Idaho Sitewide Safeguards and Security	56,343	58,103
Program Direction	59,787	60,285
Use of Prior Year Balances	0	0
Less Security Charge for Reimbursable Work	-3,003	-3,003
Total	**404,820**	**409,591**



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